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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,201	07/14/2006	Kazuhiko Miyata	70404.103/na	7707
54/072 7590 08/07/2008 SHARP KABUSHIKI KAISHA C/O KEATING & BENNETT, LLP 1800 Alexander Bell Drive SUITE 200 Reston, VA 20191				
EXAMINER				
WOOLCOCK, LENWORTH A				
ART UNIT		PAPER NUMBER		
2629				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/597,201

Applicant(s)

MIYATA, KAZUHIKO

Examiner

LENWORTH WOOLCOCK

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 15-35 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 14 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-850)
Paper No(s)/Mail Date 12/15/2006, 07/17/2006, 07/14/2006
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Nir et al (US 6704699).

Consider claim 20, Nir discloses a mobile display apparatus serving as a client device of an external host apparatus, the mobile display apparatus comprising: a display section (**see col. 14, lines 50-53**); a voice output section (**see col. 15, lines 61-**

63); a video signal input section for receiving an input video signal from the external host apparatus (**see fig. 3, element 110**); a display control section for displaying an image based on the input video signal in the display section (**see col. 15, lines 4-6**); a text recognizing section for extracting a text portion from the input video signal and converting the text portion into a text code (**see fig. 3, element 114**); and a voice output control section for outputting voice corresponding to the text code through the voice output section (**see fig. 3, element 116**), the video signal input section outputs the input video signal supplied from the external host apparatus to the display control section and the text recognizing section, and the text recognizing section converts a text portion of the input video signal supplied from the video signal input section into a text code and outputs the text code to the voice output control section, so that an image corresponding to the input video signal is displayed in the display section, and voice corresponding to the text code, which is included in the input video signal and is recognized by the text recognizing section, is outputted from the voice output section (**see fig. 3**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15,16, 27, 28, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nir et al (US 6704699) in view of Harwood et al (US 7050834).

Consider claim 15, Nir discloses a mobile-type display apparatus serving as a client device of an external host apparatus, the mobile display apparatus comprising: a display section (**see col. 14, lines 50-53**); a voice output section (**see col. 15, lines 61-63**); a text code input section for receiving an input text code (**see fig. 3, element 114**); a display control section for displaying text corresponding to the input text code in the display section (**see col. 15, lines 4-6**); and a voice output control section for outputting voice corresponding to the input text code through the voice output section (**see fig. 3, element 116**), the voice input section outputs the input text code to the display control section and the voice output control section so as to display the text corresponding to the input text code in the display section, and output the voice corresponding to the input text code through the voice output section (**see fig. 3**). Nir does not specifically disclose receiving an input text code from the external host apparatus. Harwood discloses receiving an input text code from an external host apparatus (**see col. 9, lines 42-49**).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Nir, and have receiving an input text code from an external host apparatus, as taught by Harwood, thus enhancing safety and convenience, as discussed by Harwood (**see col. 1, lines 21-23**).

Consider claim 16, Nir discloses a video signal input section for receiving an input video signal from the external host apparatus (**see fig. 3, element 110**), wherein:

the display control section displays in the display section an image based on the input video signal supplied to the video signal input section, and displays the text corresponding to the input text code so that the text is superimposed on the image (**see col. 15, lines 4-6, text is displayed on display**).

Consider claims 27 and 34, Harwood discloses the display section performs display by liquid crystal (**see col. 5 lines 35-42**).

Consider claims 28 and 35, Harwood disclose the display section performs display by liquid crystal. Harwood does not specifically disclose the display section performs display by an EL layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use and EL display since the examiner takes Official Notice of the equivalence of a LCD and a EL display for there use in the display art and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nir et al (US 6704699) in view of Harwood et al (US 7050834) in further view of Matsumoto et al (US 5206634).

Consider claim 17, Nir and Harwood discloses the mobile display apparatus as set forth in claim 16 (**see above**). Nir and Harwood does not specifically disclose the display section has a plurality of scanning lines arranged in line and a plurality of signal lines arranged in line and respectively intersect with the scanning lines, and the display control section includes a (i) scanning line drive circuit which serves as a display section

drive circuit for driving the display section by sequentially supplying scanning signals to the scanning lines, and a (ii) signal line drive circuit for supplying video signals to the signal lines, the scanning line drive circuit being constituted of a first signal line drive circuit for receiving the video signal from the video signal input section and a second signal line drive circuit for receiving a video signal for displaying the text corresponding to the input text code, the first signal line drive circuit and the second signal line drive circuit sharing the signal lines. Matsumoto discloses the display section has a plurality of scanning lines arranged in line and a plurality of signal lines arranged in line and respectively intersect with the scanning lines, and the display control section includes a (i) scanning line drive circuit which serves as a display section drive circuit for driving the display section by sequentially supplying scanning signals to the scanning lines, and a (ii) signal line drive circuit for supplying video signals to the signal lines, the scanning line drive circuit being constituted of a first signal line drive circuit for receiving the video signal from the video signal input section and a second signal line drive circuit for receiving a video signal for displaying the text corresponding to the input text code, the first signal line drive circuit and the second signal line drive circuit sharing the signal lines **(see col. 6, lines 16-36)**.

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Nir and Hardwood, and have the display section has a plurality of scanning lines arranged in line and a plurality of signal lines arranged in line and respectively intersect with the scanning lines, and the display control section includes a (i) scanning line drive circuit which serves as a display section drive circuit for

driving the display section by sequentially supplying scanning signals to the scanning lines, and a (ii) signal line drive circuit for supplying video signals to the signal lines, the scanning line drive circuit being constituted of a first signal line drive circuit for receiving the video signal from the video signal input section and a second signal line drive circuit for receiving a video signal for displaying the text corresponding to the input text code, the first signal line drive circuit and the second signal line drive circuit sharing the signal lines, as taught by Matsumoto, thus providing a display with limited degradation, as discussed by Matsumoto (**see col. 3 lines 1-19**).

Claims 18, 19, 21-23, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nir et al (US 6704699) in view of Harwood et al (US 7050834) in further view of Matsumoto et al (US 5206634) in further view of Miyata et al (EP 1475988) in further view of Lee et al (US 5917477).

Consider claim 18, 19, and 21, Nir and Harwood discloses the mobile display apparatus as set forth in claims 15, 16 and 20 (**see above**). Nir and Harwood does not specifically disclose wherein: the display section is constituted of a display element drivable by a thin film element, and the input text code input section, the display control section, and the voice output control section are either directly formed on a thin film substrate on which a pixel driving circuit element of the display element is formed, or are constituted of active elements formed on another substrate which is to be bonded to the thin film substrate. Matsumoto discloses the display section is constituted of a display element drivable by a thin film element and the display control section (**see fig.**

7). Lee discloses the display section also including the input text code input section (**see col. 2, lines 14-24**). Miyata discloses the display section also including the voice output control section with are either directly formed on a thin film substrate on which a pixel driving circuit element of the display element is formed or constituted of active elements formed on another substrate which is to be bonded to the thin film substrate (**see par. [0009]**).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Nir and Hardwood, and have the display section is constituted of a display element drivable by a thin film element, and the input text code input section, the display control section, and the voice output control section are either directly formed on a thin film substrate on which a pixel driving circuit element of the display element is formed, or are constituted of active elements formed on another substrate which is to be bonded to the thin film substrate, as taught by Matsumoto, Lee and Miyata, thus providing an efficient and compact tool.

Consider claims 22 and 29, Miyata discloses the voice output section is constituted of a sound source element which is layered on the display element constituting the display section within a flat region of the display element, sound source element generating voice by vibrating the display element (**see par. [0009]**).

Consider claims 23 and 30, Miyata discloses the sound source element is driven by a sound source element drive section which is either directly formed on the thin film substrate, or is constituted of active elements formed on another substrate which is to be bonded to the thin film substrate (**see par. [0010]**).

Claims 24-26 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nir et al (US 6704699) in view of Harwood et al (US 7050834) in further view of Matsumoto et al (US 5206634) in further view of Miyata et al (EP 1475988) in further view of Lee et al (US 5917477) in further view of Miyake et al (US 20010019877).

Consider claims 24 and 31, Nir, Harwood, Matsumoto, and Miyata discloses the mobile display apparatus as set forth in claim 18 and claim 21 (**see above**). Nir, Harwood, Matsumoto, and Miyata does not specifically disclose the thin film substrate includes a thin film layer including a polycrystal silicon thin film. Miyake discloses the thin film substrate includes a thin film layer including a polycrystal silicon thin film (**see par. [0057]**).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Nir, and have disclose the thin film substrate includes a thin film layer including a polycrystal silicon thin film, as taught by Miyake, thus allowing for greater stability.

Consider claims 25 and 32, Nir, Harwood, Matsumoto, and Miyata discloses the mobile display apparatus as set forth in claim 18 and claim 21 (**see above**). Nir, Harwood, Matsumoto, and Miyata does not specifically disclose the thin film substrate includes a thin film layer including a continuous grain boundary crystal silicon thin film. Miyake discloses the thin film substrate includes a thin film layer including a continuous grain boundary crystal silicon thin film (**see par. [0053]-[0055]**).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Nir, and have disclose the thin film substrate includes a thin film layer including a continuous grain boundary crystal silicon thin film, as taught by Miyake, thus allowing for greater stability.

Consider claims 26 and 33, Nir, Harwood, Matsumoto, and Miyata discloses the mobile display apparatus as set forth in claim 18 and claim 21 (**see above**). Nir, Harwood, Matsumoto, and Miyata does not specifically disclose the another substrate having active elements has a hydrogen ion injection section, the hydrogen ion injection section being adhered to the thin film substrate and heated to be cured so as to combine said another substrate with the thin film substrate. Miyake discloses the another substrate having active elements has a hydrogen ion injection section, the hydrogen ion injection section being adhered to the thin film substrate and heated to be cured so as to combine said another substrate with the thin film substrate (**see par. [0065]**).

It would have been obvious to one skilled in the art at the time the invention was made to modify the invention of Nir, and have disclose the another substrate having active elements has a hydrogen ion injection section, the hydrogen ion injection section being adhered to the thin film substrate and heated to be cured so as to combine said another substrate with the thin film substrate, as taught by Miyake, thus allowing for greater stability.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LENWORTH WOOLCOCK whose telephone number is (571)270-5152. The examiner can normally be reached on M-F 8:30am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lenworth Woolcock/
Examiner, Art Unit 2629

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629